WHAT IS CLAIMED IS:

1. A composite material comprising a thermoplastic hydrophilic matrix and a liquid active ingredient dispersed in a oil-in-water emulsion, wherein the liquid active ingredient forms inclusions in the matrix of very fine and uniformly distributed droplets.

2. A composite material according to claim 1 wherein the inclusions have a droplet size of between 0.01 μm to 2 μm.

3. A composite material according to claim 2 wherein the inclusions have a droplet size of between 0.05 μm and 1 μm.

4. A composite material according to claim 1 wherein a load of the active ingredient in the composite material is between 1 to 50 % w/w.

5. A composite material according to claim 5 wherein a load of the active ingredient in the composite material is between 5 to 15% w/w.

6. A composite material according to claim 1 wherein the active ingredient is selected from the group consisting of a flavor compound, an extract, a precursor or a composition containing a flavor compound, and mixtures thereof.

7. A composite material according to claim 1 wherein the active ingredient is selected from the group consisting of a fragrance, a fragrance precursor, an odor masking agent, and mixtures thereof.

8. A composite material according to claim 1 wherein the active ingredient is a compound with biological activity.

9. A composite material according to claim 8 wherein the compound with biological activity is selected from the group consisting of a pharmaceutically active substance, an insect repellent, a bactericide, a fungicide, an accaricide and mixtures thereof.

acaride

10. A composite material according to claim 1 further comprising a second active ingredient dispersed in the emulsion.

11. A method for preparing a composite material comprising:

(a) mixing a liquid active ingredient in a oil-in-water emulsion with a matrix premix comprising a thermoplastic hydrophilic polymer; and

(b) extruding the mixture of (a) to form a composite material comprising a thermoplastic hydrophilic polymer matrix with the liquid active ingredient dispersed as inclusions of very fine and uniformly distributed droplets in the matrix.

12. A method according to claim 11 further comprising introducing the mixture of (a) into an extruder before extrusion.

13. A method according to claim 11 further comprising introducing the oil-in-water emulsion into a barrel of an extruder, which barrel contains the matrix premix, and mixing the emulsion droplets with the matrix premix.

14. A method according to claim 11 wherein a polymeric fraction comprises 50% w/w to 100% w/w of the matrix premix.

15. A method according to claim 11 wherein the oil-in-water emulsion contains 5 to 80% w/w active ingredients, 10 to 90% w/w water, 0.5 to 10% w/w emulsifier, and 0 to 10% w/w additives.

16. A method according to claim 11 wherein the oil-in-water emulsion contains 30 to 60% w/w active ingredients, 15 to 40% w/w water, 0.5 to 10% w/w emulsifier, and 0 to 10% w/w additives.

17. A method according to claim 11 wherein the matrix premix comprises a hydrophilic thermoplastic polymer and an additive.

18. A method according to claim 17 wherein the hydrophilic thermoplastic polymer is selected from the group consisting of native starch, modified

starch, thermoplastic starch, polyvinyl alcohol, its copolymers, and polyesters.

19. A method according to claim 17 wherein the additive is selected from the group consisting of crosslinking agents, plasticizers, antiplasticizers, fillers, and mixtures thereof.

20. A method according to claim 11 wherein the oil-in-water emulsion further comprises an emulsifier and a surfactant.

21. A method according to claim 20 wherein the emulsifier is selected from the group consisting of a modified starch, a sucrose or sorbitol ester of a fatty acid, a carbohydrate, a phospholipid, and mixtures thereof.

22. A method according to claim 20 wherein the surfactant is selected from the group consisting of a monomolecular surfactant, a polymeric surfactant, and a colloid stabilizer.

23. A method according to claim 20 further comprising a co-surfactant.

24. A method according to claim 23 wherein the co-surfactant is a primary alcohol or a short chain alkylsulfate.

25. A protective or controlled release system for an active ingredient comprising a composite material comprising a thermoplastic hydrophilic matrix and an active ingredient dispersed in a oil-in-water emulsion wherein the active ingredient forms inclusions of very fine and uniformly distributed droplets in the matrix.

26. A protective or controlled release system according to claim 25 wherein the active ingredient is a flavor or a fragrance.

27. A protective or controlled release system according to claim 26 wherein the composite material comprising a fragrance as the active ingredient is incorporated into a consumer product selected from the group consisting of a dry detergent, a household product, and a cosmetic.